Barnsley style combines Arts and Crafts

The pencil roll adds a stylish touch to the back of the tabletop and prevents objects from sliding off.


Stringing emphasizes the shapes of the tabletop and drawer fronts, and leads the eye to handmade drop pulls (covered on pp. 66-71).


A gun-stock joint, a type of haunched miter reinforced with slip tenons, allows the bottom rails to flow into the leg.

## BYKEVINKAUFFUNGER

Iwas introduced to the work of Edward Barnsley while studying furniture making at the College of the Redwoods. Among the more dog-eared books in the school's library was an out-of-print catalog from a retrospective exhibit of his work that took place in the early 1980s. I was immediately inspired.
Barnsley was a direct descendant of the English Arts and Crafts movement (his architect father and uncle were major proponents). His early pieces were typical of the style: solid wood, thick, with exposed joinery that communicated a visual and literal strength. After World War II, his work transitioned into something more refined. It still maintained the technical honesty of Arts and Crafts, but it began to reflect the spare elegance seen in the Hepplewhite or Federal styles.
This sideboard is not a direct copy of any Barnsley piece, but rather it incorporates many of his design elements. The construction process is relatively straightforward, so I'll focus on the Barnsley elements.

## Flowing joinery

Where the legs meet the bottom rails, the lower edge of the joint flows in a continuous curve. Just joining the two members at right angles would leave weak short grain on the tip of the rail. To minimize this problem, craftsmen use a type of haunched miter called a gun-stock joint, combined with slip tenons.
Lay out the legs on a template of $1 / 8$-in.-thick plywood or MDF, transcribe the pattern onto

## Hall Table

simplicity with Federal elegance


## How to form the joint

Cut the miters on both parts of the joint first, but don't try to create a seamless curve until after the joint is glued together.

## INSIDE THE GUN-STOCK JOINT



WHY BOTHER?



Start at the top of the legs. First lay out the entire leg, and then create the mitered part of the gun-stock joint on the inside faces. After cutting the mortises for the rails and the panels, bandsaw down from the top of the leg to the peak of the miter. Use a fence to guide the cut.


Taper the lower section. Attach the template to the leg with double-stick tape and use a bearing-guided straight bit to clean up the tapered sections. Stop $1 / 2$ in. short of the gun-stock joint; this area will be completed after the base is assembled.


Shape the rails. After mitering the ends of the lower rails, bandsaw the concave profile between the miters. Then clean up the surface using a template and bearing-guided bit. Again, stop just short of the gun-stock joint.

WIDE DRAWER NEEDS A CENTER GUIDE Drawers wider than they are deep tend to jam. To ensure smooth action, install a drawer guide in the bottom of the middle drawer.

Top (less pencil roll), $7 / 8$ in. thick by $113 / 8 \mathrm{in}$. wide by 42 in . long

Upper rails, $5 / 8 \mathrm{in}$. thick by $13 / 8$ in. wide by $381 / 4 \mathrm{in}$. Iong

Drawer stops, $1 / 8$ in. thick by $1 / 2 \mathrm{in}$. wide by 2 in . long, faced with $1 / 8$-in.-thick cork

Front and rear bottom rails, $11 / 16$ in. thick (before shaping) by $15 / 8 \mathrm{in}$. wide by 37 in . long

Drawer back, $3 / 8$ in. thick


Stringing, $1 / 16$ in. wide by $1 / 16 \mathrm{in}$. thick

To learn how to make these drop pulls and other handmade hardware turn to pp. 66-71.
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joint. You'll want to leave extra material here so that you can finish shaping the joint after glue-up.

## Decorative chamfers and miters

Subtle chamfers surround the drawer openings and side panels, but instead of the legs and rails meeting in a normal miter, which would involve insetting the rails into the legs, they meet in a false, or mason's, miter. Begin by routing the chamfer on the inside edge of all the rails.
using the same crosscut sled setup that you used on the legs.
Use a bandsaw to rip from the top of the leg down to the peak of the miter, reducing this portion of the leg to $13 / 8 \mathrm{in}$. square. Clean up the bandsaw marks with a block plane. You're now ready to taper and curve the leg on the bandsaw. You can use the template to guide a router bit first or do all the cleanup with hand tools, but whatever method you choose, make sure not to fully shape the curve around the

SIDE VIEW



Recess for center drawer spline, $3 / 16$ in. wide by $1 / 8 \mathrm{in}$. deep.




Center drawer spline, $3 / 16$ in. thick by $1 / 2$ in.


Front stile, $1 / 2 \mathrm{in}$. thick by $13 / 8 \mathrm{in}$. wide by $31 / 16 \mathrm{in}$. long $3 / 8$ in. thick


Slip tenons, 5/16 in. thick by $5 / 8 \mathrm{in}$. wide by $11 / 4 \mathrm{in}$. long

## LOWER RAIL JOINT DETAIL



Mark the legs where the rails intercept them, and then rout a chamfer on the legs, stopping short of this mark. The mason's miters are completed after the table is assembled because clamping pressure during glue-up may slightly change where the legs and rails meet, misaligning the chamfers.
After making the remaining parts for the base of the table, begin the assembly by gluing the sides together. Next, glue the bottom assembly and the front

Pencil roll, $5 / 8 \mathrm{in}$. thick by $11 / 8$ in. tall by 42 in . long

Kickers, $5 / 8$ in. thick by $13 / 8$ in. wide by $81 / 8$ in. long

Top and bottom divider rails, $1 / 2 \mathrm{in}$. thick by 1 in . wide by $71 / 4 \mathrm{in}$. long

Back panel, $3 / 8$ in.
thick by $31 / 4 \mathrm{in}$. wide
by $37 \frac{1}{4} \mathrm{in}$. long

PENCIL ROLL DETAIL


Rear stile, $1 / 2$ in. thick by 1 in . wide by $31 / 16 \mathrm{in}$. long

Splines, $3 / 16$ in. thick by $1 / 2 \mathrm{in}$. wide, attach divider rails to runners and kickers.

Inside faces of leg taper from $13 / 8$ in. at top to $11 / 16 \mathrm{in}$. at bottom


Top side rails, $5 / 8 \mathrm{in}$. thick by $13 / 8 \mathrm{in}$. wide


Bottom side rails,
11116 in. thick
(before shaping) by $15 / 8$ wide by $81 / 8$ in. long


Legs, $13 / 4$ in. thick by $13 / 4 \mathrm{in}$. wide (before shaping) by $311 / 8 \mathrm{in}$. long
and back bottom rails to the runners, then glue the top assembly and the front and back top rails to the kickers. Glue the bottom assembly to the sides using slip tenons, then attach the top assembly via dovetailed tenons in the tops of the legs, sandwiching the partitions.
With the base glued together, you can fair the gun-stock joints and complete the mason's miters. To mark the termination point of the chamfers on

## Another nice detail: mason's miters



Chamfer the rails. The front, back, and side rails receive a decorative chamfer along their inside edges.


Stop-chamfer the legs. Dry-fit the rails to the legs and lightly mark where they meet (above). Chamfer the inside corners on the show faces of the legs. Stop just short of where they intersect with the rails (right). The mason's miters will be completed after the table base is assembled.

## Assemble the base



Do it in stages. Pre-finish the panels completely and then glue together each side of the table (above). Glue up the top and bottom assemblies, glue the bottom assembly to the sides, insert the pre-finished back panel and the drawer dividers, and then glue in the top assembly (right).

Now fair the joints equipped with an edge guide to make the $1 / 16$-in.-square grooves, taking care not to rout past the end points. I always use a carbide down-spiral or down-shear bit (Freud No. 04-096; www.woodcraft.com and other online sites) as the downward pressure minimizes fuzz on the top edge of the groove. As an extra precaution, I rout the groove through a strip of masking tape.
To be sure the holly stringing fits the groove, I make it myself. Starting with a 1 x1 stick, I bandsaw $3 / 16$-in.-thick strips. To plane them down to $1 / 16$ in., I use doublestick tape to attach them to MDF. Last, I bandsaw them $1 / 8 \mathrm{in}$. wide, with a zeroclearance insert in the throat.
The top is solid walnut and will expand and contract across the grain with seasonal changes in humidity. Running long grain stringing across the grain could cause the stringing to pop out. To avoid this, you want the stringing also to be crossgrain.
Using a block of holly about 1 in . square, saw slices off the end as thick as the width of the groove in the tabletop. Use a plane iron and a mallet to chop these slices into five or six sections. Don't worry about



Lay out the gun-stock curve. Use a template to draw the finished curve.


Shape and smooth it. A coarse Microplane removes the waste wood quickly.


## Finish the

 mason's miters. Create a stop cut where the rail's chamfer meets the leg; then use a plane iron to complete the chamfer on the leg.
## Holly stringing <br> outlines the tabletop



Cut clean grooves. The combination of a down-spiral bit and masking tape minimizes tearout when cutting grooves for the stringing.



Install the stringing. Mill the long-grain stringing to $1 / 16$ in. thick. Use a glue syringe to inject the glue into the groove.
getting the sizes exactly the same, because they'll be planed flushed once installed in the table. Glue these pieces edge to edge into the groove. At the corners, butt the pieces together rather than trying to miter the fragile cross-grain stringing.

For the drawer fronts, you can use a plunge router with an edge guide, except for the curved portions near the drawer pulls. Here, use the plunge router with a template bushing and follow a Masonite template to get the curved shape. I made a short template and moved it to each curved section, but the extra time spent

CROSS-GRAIN STRINGING MOVES WITH THE SEASONS


Like slicing salami. Double-stick tape on the stop block ensures you don't lose thin sections when slicing end-grain holly.


Chop the slices. Use a sharp plane iron to cut each slice of holly into five or six sections.


End grain up. The short sections of end-grain holly will move seasonally with the solid-wood tabletop.


Trim it flush. Use a scraper to bring the stringing flush with the tabletop. Near the corners, use a plane iron to avoid tearout.

## and drawer fronts


*For center drawer; changes to 4 in. for side drawers.


Straight grooves
first. Use a router equipped with an edge guide to cut the grooves for the straight sections of stringing.
tame the curves with pattern routing


Make a template. A piece of Masonite attached with double-stick tape guides a bushing on the router when cutting the curved grooves adjacent to the drawer pulls. Spend some time aligning the template so that the curved groove transitions perfectly into the straight sections.
lining up the template to make sure that the curve flows smoothly would have been better spent making one long template.
The curve is too tight to hand-bend the stringing without breaking it, so instead use a hot pipe to soften the wood and allow it to bend (see Master Class: "The magic of hot-pipe bending," FWW \#205).
Though some of the stringing on the drawer fronts goes cross-grain, the span is too short to need cross-grain stringing. Let the inlay dry, and then plane and scrape the holly flush. Finally, attach the tabletop.

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1/16-in.-dia. down-spiral bit

Round the bend and miter the joints. For the curved stringing, soften and bend the holly on a piece of pipe heated with a propane torch (above left). Dry-fit each section of stringing, mark the ends (below left), then remove the stringing and miter the ends with a plane iron.

